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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,450	02/28/2002	Jui Liang	P 0272274	6685

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EXAMINER

TRAN, HENRY N

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,450

Applicant(s)

LIANG, JUI

Examiner

HENRY N. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002 and 25 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This application has been examined. The preliminary amendment filed 10/25/02 was entered. Claims 1-47 are pending. The examination results are as following.

Information Disclosure Statement

1. The examiner has considered the references listed in the information disclosure statement (IDS) filed 10/25/02 (Paper No. 4) (see the attached form PTO-1449).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 44-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner is unable to find the supports in the specification or the drawings for the claimed limitations: reading a portion of the video data from the buffer; and transferring a display data signal based on the portion of the video data to a display device, wherein a frequency of the display signal is based on an amount of video data that has not yet been read from the buffer (see lines 3-6 of claim 44). The examiner is not able to figure out how to identify: a frequency of the display signal is based on an amount of video data

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that has not yet been read from the buffer. Applicant is required to provide supports for this claimed limitation; especially, a drawing or drawings for illustrating the above identified underlined method step.

The examiner is unable to apply prior art for rejecting claims 44-47 until the rejections under 35 U.S.C. 112, first paragraph, discussed above is overcome.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al (U.S. Patent 5,861,879, hereinafter referred to as “Shimizu”).

6. Regarding claim 12, Shimizu teaches a frame rate control system (a video signal processing device) comprising: a buffer M1, M2 (field memories M1 and M2); a write control component 12 (an input video clock generator 12) configured to write data frames (data fields) to the buffer according to a write pointer WE (which is represented by WE1 and WE2; or W MEMORY); a read control component 14 (a display video clock generator 14) configured to read data frames (data fields) from the buffer at a read frequency according to a read pointer RE (which is represented by RE1 and RE2; or R MEMORY); and a frequency controller 16 (an address observation circuit 16) configured to determine the relation between a value of a write

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pointer and a value of a read pointer and to indicate the reading frequency based on the determined relation (see figures 2-6); col. 5, line 29 to col. 8, line 57). By this rationale, claim 12 is rejected.

7. Regarding claims 13-20, Shimizu further teaches: the reading frequency, RE, is equal to write frequency, WE, which is equal to the source signal frequency, INPUT V or Vsync (Shimizu shows step of $W \text{ MEMORY} = R \text{ MEMORY}$) (see figures 3 and 6) (claim 14); the frequency controller 16 includes a detector, 38, 40 and 42 (field judgment sections 38 and 40, and a selector 42) configured to detect a buffer overflow condition ($A-B > 0$) or a buffer underflow condition ($A-B < 0$) (Shimizu says pass-by or not pass-by conditions) (see figure 5) (claim 15); the detector is operative to output a first signal and a second signal, $S = L$, or H , responsive to the buffer overflow or underflow conditions (see figure 7) (claim 16), the frequency controller 16 is configured to indicate a reading frequency in accordance with one of the first signal and the second signal by providing signal MON (see figure 7) (claim 17); frequency controller 16 includes the frequency control element, 44, 46, and 50 (a selector 44, a counter 46, and a flip flop 50 (which is a PLL 50), configured to control the read control element, 14, to read data frames at the reading frequency (RE1, or RE2) according to both a buffer overflow condition or a buffer underflow condition (using the MON signal) (see references recited above). Official Notice is taken for the claimed limitation "a scaler operative to modify the data frames in accordance with the capabilities of a display device" (claim 13), because this feature is old and well-known in the art of display device, wherein a scaler is used to interpolate the input data frames accordance with the capabilities of a display device for adjusting the display resolution for improving the display images. Claims 13-20 are dependent

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upon claim 12, and are therefore rejected on the same reasons set forth for claim 12, and by the reasons noted above.

8. Regarding claims 1 and 3-11, which are method claims corresponding to the apparatus claims 12-20, and are rejected on the same basis set forth in claims 12-20.

9. Regarding claim 2, which is a method claim depended upon claim 1, wherein a method step of "receiving an analog signal source image from an image source and generating a source data by converting the image source signal to digital form", which is very old and well known in the art; for example, the use of the A/D converter 30 for receiving an analog signal source image from an image source and generating a source data by converting the image source signal to digital form (see U.S. Patent 5,410,357 listed in form PTO-1449 submitted by the applicant to the Office in the IDS paper No. 4). Claim 2 is dependent upon claim 1, and is therefore rejected on the same reasons set forth for claim 1, and by the reasons noted above.

10. Regarding claims 21-30, which are method claims comprising the method steps defined in the method claims 1-11, and are rejected on the same reasons set forth in claims 1-11.

11. Regarding claims 31-37 and 38-43, which are apparatus claims and computer program claims corresponding to the apparatus claims 12-20, and are rejected on the same reasons set forth in claim 12-20 discussed above.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N. TRAN whose telephone number is (703) 308-8410. The examiner can normally be reached on Mon - Fri from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A. HJERPE, can be reached at (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office Whose telephone number is (703) 306-0377.

Henry N. Tran

HENRY N. TRAN
Examiner
Art Unit 2674

hnt
March 17, 2003